

Rosebrugh (A. M.)

A BRIEF REPORT OF CASES OF SYMPATHETIC
OPHTHALMIA AND SYMPATHETIC
IRRITATION.

By A. M. ROSEBRUGH, M.D.,
Surgeon to the Toronto Eye Infirmary.

(Reprinted from the Canada Lancet, June 16th, 1873.)



A BRIEF REPORT OF CASES OF SYMPATHETIC OPHTHALMIA AND SYMPATHETIC IRRITATION.

BY A. M. ROSEBRUGH, M.D., SURGEON TO TORONTO EYE INFIRMARY.

(Read before the Medical Section of the Canadian Institute, May 16th, 1873. Reprinted from the Canada Lancet for June.)

About two years ago I had the privilege of reading a paper before this Society on Sympathetic Ophthalmia, in which I endeavoured to point out :

1st. That Sympathetic Ophthalmia is a peculiarly destructive form of inflammation of the eye, arising solely from irritation in the opposite eye, and that, as a rule, it runs its course unchecked, and the patient is left hopelessly blind.

2nd. That the most common cause of Sympathetic Ophthalmia, or Sympathetic Irritation, is injury to the opposite eye, particularly wounds in the region of the ciliary body ; and

3rd. That the only possible means of arresting the progress of the disease is the early removal of the injured eye, and that in all cases when the injured organ is enucleated before Sympathetic inflammation is actually established, even although it may be already very much weakened from Sympathetic Irritation, the uninjured eye never becomes affected with Sympathetic Ophthalmia.

The following cases illustrate some of these points. They are arranged according to the length of time that intervened between the date of injury and the appearance of sympathetic trouble in the uninjured eye. Eight are cases of Sympathetic Ophthalmia, and three are cases of Sympathetic Irritation.

I.—SYMPATHETIC OPHTHALMIA.

CASE 1.—*Total blindness, in three weeks after injury of one eye, from Sympathetic Ophthalmia.*

Peter John H., of Listowell, aged 16. Four years ago last March he was hooked by an ox, the horn rupturing the eye-ball, and a portion of the vitreous humour escaping. The wound healed, but remained irritable, and two weeks after the accident the uninjured eye became sympathetically affected, and one week later he was perfectly blind. I saw the case about two years after the accident, and found both eyes destroyed as organs of vision. He is now in the Institution for the Blind at Brantford.

CASE 2.—*Total blindness in five weeks, from wound in one eye.*

Mrs. A. W. B., of Little Scotland, county of Brant, had an injury in one eye in February last. Some boys were exploding a percussion cap, while she was looking on from a distance of six or eight feet. A piece struck the eye in the ciliary region. The sight of that eye soon became impaired, and the eye painful. In five weeks she complained that the uninjured eye felt "weak," and by the end of the sixth week she was blind in both eyes. I saw her three weeks later, and found a cicatrix in the sclerotic, just external to the margin of the cornea. The eye was irritable and the tension reduced. The pupil was closed and the perception of light reduced to a minimum. On examination of the uninjured eye, I found the pupil closed with plastic exudation, but the inflammation had subsided. The quantitative perception of light was good. I recommended the immediate removal of the injured eye, and subsequently an artificial pupil operation on the other eye; but as the patient had a great dread of chloroform, she declined operative interference.

CASE 3.—*Total blindness from Sympathetic Ophthalmia, six weeks after injury of right eye.*

Joseph H., aged 22, Delaware, Ont. The right eye was injured in September, 1870, from the recoil of a piece of spring wire. The steel caused a penetrating wound of the cornea and prolapse of the iris. The wound healed in about ten days and the sight recovered completely. In about two weeks after the accident he had an attack of what his physicians called conjunctivitis, supposed to be caused

by exposure to the dust of a threshing machine. This congestion of the conjunctiva was probably symptomatic of ciliary irritation caused by dragging upon the ciliary processes on account of the prolapse of the iris. The eye recovered from this attack, but in about three weeks later the eye again became inflamed, the disease extending to the iris and closing the pupil. One week later, or six weeks after the injury to the left eye, sympathetic irido-choroiditis was set up in the left eye which resulted in total blindness. He is also at the Institution for the blind at Brantford.

CASE 4.—Total blindness from Sympathetic Ophthalmia eight weeks after wound of right eye.

Samuel McC., aged 36, Mt. Pleasant. Right eye wounded in June, 1871, from splinter of wood while chopping. The wound was in the sclerotic, just external to the cornea, and extending into the ciliary region. About three weeks after the accident, he came to Toronto for advice. The surgeon whom he consulted did not recommend any interference, and he returned without anything being done for him. I saw the case in October; about four months afterwards, and found that the injured eye was quite destroyed, and that the pupil of the other eye was quite closed from plastic exudation. I then learned that the inflammation had set up in the then sound eye almost exactly six weeks from the date of injury of the other eye. The injured eye was enucleated and an iridectomy performed upon the opposite eye. Vision was somewhat improved by the artificial pupil. He returned in February, 1872, for a second operation. Unfortunately suppurative inflammation followed the operation, and he is now hopelessly blind. I learned subsequently that at this particular time erysipelas and puerperal fever were unusually prevalent in Toronto and vicinity. The suppurative inflammation following the operation upon the iris may have arisen from the same predisposing atmospheric cause.

CASE 5.—Blindness in one eye and Sympathetic irido-choroiditis in the other seven weeks after injury. Good result.

R. S. H., of Concession, while driving a nail, Feb. 15, the nail broke and the end struck the left eye in the ciliary region. He was sent to me by his family physician four weeks after the accident. The eye was then filled with blood and quite useless; the sclerotic

was ruptured in the ciliary region. He returned home with a note to his physician pointing out the danger to be apprehended, and recommending that both eyes be closely watched. He returned in three weeks, led by his brother. The injured eye was about the same as when I saw it last, with the exception that there was less haemorrhage and he could see the light from the ophthalmoscopic mirror brighter than before. On examining the right eye, however, I found the pupil irregular and other symptoms of Sympathetic irido-choroiditis. The injured eye was enucleated the same day under chloroform. The right eye was placed under treatment and it commenced to improve immediately. In two weeks he returned to Consecon ; the inflammation relieved, vision restored and wearing an artificial eye.

CASE 6.—Total blindness from Sympathetic Ophthalmia two months after wound of left eye.

The following very brief memorandum is copied from my journal for 1871. I cannot now recall the case. Hamilton P., Toronto, aged 21. When six years of age the left eye was wounded with a scythe. The eye remained full size after the accident, but the sight was destroyed. Four weeks afterwards the sight of the right eye commenced to fail, and in about two months from the date of the accident he was quite blind.

CASE 7.—Total blindness from Sympathetic Ophthalmia in nine months after wound of left eye.

Hester L., aged 21, County of Hastings, gives the following account of her case :—At eight years of age, the left eye was wounded with a stick of wood. The “pupil” was cut. The accident occurred at Christmas time. The wound was healed in about a month, but that eye was quite blind. She went to school for eight months, when the right eye began to fail. At first she noticed that there was occasionally a blur over the letters in reading ; this increased, and both eyes became quite painful ; the sight continued to fail until the month of October, when she found herself quite blind in both eyes. She has now been blind 13 years. Both eyes are atrophied.

CASE 8.—*Total blindness from Sympathetic Ophthalmia fifteen months after wound of right eye.*

George B., aged 18, Toronto, has been blind for 4 years. When about 12 years of age, he had a wound of the right eye with a piece of glass, which resulted in the loss of sight in that eye. The sight in the other eye began to fail in about a year after the accident. Six months after he applied for relief at the then Toronto Eye Dispensary, when he was found to be quite blind. His right eye was slightly atrophied (tension reduced) and tender to the touch, the direct result of the wound eighteen months previously. The left eye was full and the tension normal, but the pupil was completely closed, and the iris adherent to the anterior capsule of the lens, (posterior synechia) the result, undoubtedly, of sympathetic irido-choroiditis. The right eye was enucleated, and subsequently an artificial pupil operation was performed on the left, but without avail. The eye subsequently atrophied. He is also in the Brantford Blind Institute.

II.—SYMPATHETIC IRRITATION.

CASE 9.—*Sympathetic Irritation three months after wound of opposite eye. Good result.*

Robert L., aged 45, Toronto. About March 15th, 1869, the eye was wounded by a piece of iron rivet, in using a hammer and chisel. The wound extended from the cornea into the ciliary region. The sight was destroyed, and the eye kept tender until June 15th, when he first came under observation. The wound had quite healed, but the eye was sensitive to the touch. The opposite eye to all appearance was healthy, but he complained of its being so weak, that he could neither read nor return to his work. In technical language, he had sympathetic irritation. A consultation with the family physician was suggested, but he was not seen again for two weeks, when the consultation was held, and the enucleation of the injured eye decided upon, to which he only gave a reluctant consent after the strongest representations were made to him by his clergyman and family physician. In a week's time the eye was perfectly healed, and in less than two weeks he was at work again.

CASE 10.—*Sympathetic Irritation from wound of the opposite eye twelve months previous. Good result.*

Daniel M., of Lindsay, aged 33. In March, 1870, while cutting hot iron with a chisel, a piece hit the eye and ruptured the sclerotic. His physician sent him to Toronto, and three sutures were introduced. The wound was healed in three weeks. He returned to his home and his business as a blacksmith. The sight in that eye was destroyed, and the eye was occasionally a little sore, but he kept at his work for 12 months, when he returned to Toronto, no longer able to continue his business on account of Sympathetic Irritation. The injured eye was enucleated, and in a week's time the other eye was quite strong again. A week later he left Toronto wearing an artificial eye.

CASE 11.—*Sympathetic Irritation. Piece of steel in the eye eighteen years. Good result.*

A. R. H., Toronto. Right eye blinded 18 years from a piece of steel entering and remaining in the eye. No irritation in left eye until 12 weeks before he applied for relief. Left eye was then (Dec., 1869) so "weak" that he could neither read nor work. The injured eye was atrophied and a little tender. It was removed, 16th Dec. Four weeks afterwards his report is that his eye is all right. When last seen, 12 months ago, he was at work and wearing an artificial eye.

GENERAL CONCLUSIONS.—From these and other cases of sympathetic diseases of the eye that have come under my observation, I have been led to draw the following conclusions, which are in full accord with the conclusions of others; and which I take the liberty of expressing in language similar to that of Mr. Lawson in his admirable treatise on "Injuries of the Eye."

1st.—That Sympathetic Ophthalmia is a peculiar inflammation of one eye, originating solely from an irritation in the other.

2nd.—That the most frequent causes of Sympathetic Ophthalmia are penetrating wounds of the eye, and especially those which involve the ciliary region; and foreign bodies within the eye.

7

3rd.—That Sympathetic Ophthalmia usually takes the character of a malignant form of irido-choroiditis, with a tendency to a rapid effusion of lymph, capable of speedy organization.

4th.—That the disease once started is very difficult to arrest; that it is recurrent in its nature, and that when once fully established it often runs its course unchecked, to the complete destruction of the eye as an organ of vision.

5th.—That the removal of the injured eye affords the best chance of arresting the disease; and that, as seen in Case 5, if this operation is resorted to in its early stages, there is a good prospect of its doing so. Hence the importance of diagnosing in what cases of injury, Sympathetic Ophthalmia is likely to follow, and the necessity of at once removing such injured eyes which are prone to produce it, and especially if they are already lost for all visual purposes.

Before proceeding to a description of the operation of enucleation, with which I will bring this paper to a close, I would add that in my opinion every surgeon might be qualified to perform this operation. It is not nearly so formidable as generally supposed, and the haemorrhage is usually very slight. The wound is generally perfectly healed in six days, and an artificial eye may be worn in less than three weeks. The eyeball alone being removed, the conjunctiva and muscles form a cushion upon which the shell of the artificial eye rests, and which enables it to move in concert with the other eye.

The patient is placed on his back and brought under the influence of chloroform. The eyelids are widely separated by means of the spring (self-retained) speculum. The conjunctiva is seized near the cornea with a pair of fixation forceps; the raised portion is snipped with a pair of strabismus scissors; the points of the scissors are introduced through the wound, and the conjunctiva is dissected up for some distance on each side of the wound, and following the circumference of the cornea. This loosened portion of conjunctiva is detached close to the cornea by several snips of the scissors. A portion of conjunctiva on the opposite side of the cornea is seized, dissected from the sclerotic, and detached from the cornea in the same manner. When this part of the operation is complete, there should be a circular incision through the conjunctiva close to and

surrounding the cornea. This opening is sufficiently large for the passage of the bulb. The recti muscles are successively picked up with a strabismus hook, and divided with the scissors. It is an advantage to use two hooks, the one being introduced before the other is withdrawn. The optic nerve is usually severed with a pair of scissors, but I consider it an improvement to divide the nerve with a blunt-pointed bistorty. The eye-ball is made to advance through the conjunctival opening, and seized with the thumb and finger; the blunt-pointed knife is introduced on the nasal side, far back into the orbit. The nerve can be readily felt, it being slightly on the stretch. It is divided, and as the eye is being brought forward, the oblique muscles are divided. As a rule, but little after-treatment is required. One fold of wet lint should be kept over the eyelids for a few days, and the bloody discharges from time to time removed.

